







UNITED STATES ARMY ENVIRONMENTAL HYGIENE AGENCY

ABERDEEN PROVING GROUND, MD 21010

TOPICAL HAZARD EVALUATION PROGRAM
OF CANDIDATE INSECT REPELLENTS
AI3-37575 AND AI3-37576
US DEPARTMENT OF AGRICULTURE PROPRIETARY CHEMICALS
STUDY NOS. 75-51-0190-81 AND 75-51-0191-81
OCTOBER 1978 - JANUARY 1981



Approved for public release; distribution unlimited.

81 3 27 135

	<u>Unclassified</u> SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered) 1 75 A	EHA-15 1-0191-
1	REPORT DOCUMENT		READ INSTRUCTIONS
	1. REPORT NUMBER	2. GOVT ACCESSION NO.	BEFORE COMPLETING FORM 3. RECIPIENT'S CATALOG NUMBER
3	75-51-0190-81 apt 75-51-0191	ا م	2
	4. TITLE (and Subtitle) Topical Hazar	d Evaluation Program o	5. TYPE OF REPORT & PERIOD COVERED
	Candidate Insect Repellents US Department of Agriculture		Final, Oct 78 - Jan 81
\langle	Sends Nos. 75-51-0190-81 and		PERFORMING ORG. REPORT NUMBER 75-51-0190-81, 75-51-0191-8
Ч	1978-January 1981	The same of the sa	8. CONTRACT OR GRANT NUMBER(a)
_	MICHAEL J./ TOPPER, CPT, VC MAURICE H./ WEEKS		
	US Army Environmental Hygien	ADDRESS e Agency	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
	Aberdeen Proving Ground, MD	21010	$G \rightarrow G$
		12	ViFinal reto
	11. CONTROLLING OFFICE NAME AND ADDR Commander	IES\$	oct 78 — Jan 81
Ì	US Army Health Services Comm	and	19 NUMBER OF PAGES
	Fort Sam Houston, TX 78234		14
	14. MONITORING AGENCY NAME & ADDRESS		15. SECURITY CLASS. (of this report) Unclassified
	. 10	March	15a, DECLASSIFICATION/DOWNGRADING SCHEDULE
	16. DISTRIBUTION STATEMENT (of this Repo	rt)	
	Approved for public release;	distribution unlimited	1.
	17. DISTRIBUTION STATEMENT (of the abetra	ct entered in Block 20, Il different fro	m Report)
			[
	18. SUPPLEMENTARY NOTES		
	ie. Supplementant notes		
			1
	19. KEY WORDS (Continue on reverse side if no Topical Hazard Evaluation	Skin irritation	
		Eye irritation	1
		Photochemical irritation	on
		Guinea pig sensitizatio	on
V	Candidate repellents	ALD)
7	EG. ABSTRACT (Continue en reverse side if ne	receasy and identify by block number)	-37576 were performed by means
ı	of laboratory animal studies	using rats, rabbits, as	nd guinea pigs. The technical
	grade chemicals have the pote	ential to cause mild in	jury to the cornea, and some
	damage to the conjunctiva. H		
J	skin or photochemical irritat	ion, did not sensitize g	guinea pigs, and did not
	indicate an acute ingestion h	azard. It was recommen	

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)



DEPARTMENT OF THE ARMY

CPT Topper/mhb/AUTOVON

U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND, MARYLAND 21010 584-3980

HSE-LT-T/WP

25 MAP 1981

SUBJECT: Topical Hazard Evaluation Program of Candidate Insect Repellents AI3-37575 and AI3-37576, US Department of Agriculture Proprietary Chemicals, Study Nos. 75-51-0190-81 and 75-51-0191-81, October 1978-January 1981

Executive Secretary Armed Forces Pest Management Board Forest Glen Section, WRAMC Washington, DC 20012

A summary of the pertinent findings and recommendations of the inclosed report follows:

Preliminary hazard evaluations of AI3-37575 and AI3-37576 were performed by means of laboratory animal studies using rats, rabbits, and guinea pigs. technical-grade chemicals have the potential to cause mild injury to the cornea, and some damage to the conjunctiva. However neither demonstrated potential for causing skin or photochemical irritation, did not sensitize guinea pigs, and did not indicate an acute ingestion hazard. It was recommended that both compounds be approved for further testing as candidate insect repellents.

FOR THE COMMANDER:

1 Incl as (5 cy) . Alexander Miller JOHN F. MAZUR

MAJ, MSC

hirector, Laboratory Services

CF: HODA (DASG-PSP) fdr. HSC (HSPA-P) Dir, Advisory Cen on Tex, NRC Comdt, AHS (HSA-IPM) USDA, ARS (Dr. Terrence McGovern) USDA, ARS-Southern Region

••• 60 t 251



DEPARTMENT OF THE ARMY U.S. ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GROUND, MARYLAND 21010

TOPICAL HAZARD EVALUATION PROGRAM
OF CANDIDATE INSECT REPELLENTS
AI3-37575 AND AI3-37576
US DEPARTMENT OF AGRICULTURE PROPRIETARY CHEMICALS
STUDY NOS. 75-51-0190-81 AND 75-51-0191-81
OCTOBER 1978 - JANUARY 1981

1. AUTHORITY.

- a. Letter, US Department of Agriculture Agricultural Research Service, Southern Region, Insects Affecting Man Research Laboratory, Gainesville, Florida, 13 October 1978.
- b. Memorandum of Understanding between the US Army Environmental Hygiene Agency; the US Army Health Services Command; the Department of the Army, Office of The Surgeon General; the Armed Forces Pest Control Board; and the US Department of Agriculture, Agricultural Research, Science and Education Administration; titled, Coordination of Biological and Toxicological Testing of Pesticides, effective 23 January 1979.
- 2. REFERENCE. Toxicology Division Procedural Guide, US Army Environmental Hygiene Agency (USAEHA), 1972, revised 1976.
- 3. PURPOSE. The purpose of this program is to provide guidance for further entomological testing of the candidate insect repellents AI3-37575 and AI3-37576.
- 4. SUMMARY OF FINDINGS. Hazard evaluations of the candidate repellents AI3-37575 and AI3-37576 were conducted by this Agency using New Zealand White rabbits for skin and eye studies, Hartley guinea pigs for a skin sensitization study, and Sprague-Dawley rats for determination of oral toxicity. A tabular presentation of animal toxicity data developed in this Agency follows:*†

Approved for public release; distribution unlimited.

^{*} In conducting the studies described in this report, the investigators adhered to the "Guide for the Care and Use of Laboratory Animals," US Department of Health, Education and Welfare Publication No. (NIH) 74-23, revised 1978.

t The experiments reported herein were performed in animal facilities fully accredited by the American Association for the Accreditation of Laboratory Animal Care.

Study Nos. 75-51-0190-81 and 75-51-0191-81, Oct 78 - Jan 81

TABLE. PRESENTATION OF DATA

Test	Results	Interpretation
SKIN IRRITATION STUDIES		
Rabbits		
Single 24-hour application to intact and abraded skin of New Zealand White rabbits. O.5 mL technical-grade chemical applied to each	Chemicals AI3-37575 and AI3-37576 did not cause any irritation of the intact skin or of the skin surrounding an abrasion (refer to Appendices B and C for details).	USAEHA Category I (ref Appendix A)
of six rabbits.	101 decurry,	
EYE IRRITATION STUDIES		
Rabbits	. .	
Single 24-hour application of 0.1 mL technical grade chemical to one eye of each of six New Zealand White rabbits.	Chemicals AI3-37575 and AI3-37576 produced mild injury to the cornea and in addition mild injury to the conjunctiva in six of six rabbits (refer to Appendices D and E for details).	USAEHA Category C (ref Appendix A)
APPROXIMATE LETHAL DOSE (ALD)		
<u>Oral</u>		
Rats (male)-no diluent	AI3-37575 ALD = 4300 mg/kg AI3-37576 ALD = 2900 mg/kg	Neither chemical presents an acute lethal hazard from accidental ingestion.

Test

Results

Interpretation

PHOTOCHEMICAL SKIN IRRITATION STUDIES

Rabbits

A single 0.05 mL application of a 25 percent (w/v) solution of each chemical and a 10 percent (w/v) Oil of Bergamot solution (positive control) in 95 percent etral alcohol were applied to the intact skin of six rabbits. Five minutes after application, the rabbits were exposed to UV light (365 nm) for 30 minutes at a distance of 10-15 cm.

A 25 percent solution of AI3-37575 and a 25 percent solution of AI3-37576 in ethanol did not cause a photochemical irritation reaction under test conditions (refer to Appendices F and G for details).

Chemicals AI3-37575 and AI3-37576 did not cause a photochemical irritation reaction under test conditions and are not expected to cause a photochemical irritation in humans.

Control

Following UV exposures of the rabbits, 0.05 mL of test chemical, positive control and diluent were applied to additional skin areas to serve as unirradiated control sites. Application areas were checked for skin irritation at 24, 48 and 72 hours.

Positive control application and irradiation caused greater irritant effects than in unirradiated skin areas.

Test

Results

Interpretation

SENSITIZATION STUDIES

Guinea Pigs (Male)

Intradermal injections of 0.1 mL of a 0.1 percent solution (w/v) of AI3-37575 and AI3-37476 or of dinitrochlorobenzene (DNCB)* in a mixture containing 1 volume of propylene glycol and 29 volumes of saline

Ten test guinea pigs for each chemical were given 10 sensitizing doses over a 3-week period. After 2 weeks rest, they were challenged with ID injections of each test chemical.

Ten positive control guinea pigs were sensitized over 3 weeks with DNCB. After 2 weeks' rest, they were challenged with ID injections of DNCB.

Challenge doses of chemicals AI3-37575 and AI3-37576 did not produce a sensitization reaction (refer to Appendices H and I for details).

Challenge dose of DNCB in positive control guinea pigs produced a marked sensitization reaction in 10 out of 10 guinea pigs.

Chemicals AI3-37575 and AI3-37576 did not produce sensitization reactions under test conditions and are not expected to produce sensitization reactions in man.

DNCB produced a marked reaction, indicating the guinea pigs respond to sensitizing agents.

^{*} A known skin sensitizer

Study Nos. 75-51-0190-81 and 75-51-0191-81, Oct 78 - Jan 81

- 5. CONCLUSION. Technical-grade chemicals AI3-37575 and AI3-37576 showed a potential for causing mild eye irritation, but caused no other irritation reactions from skin, photochemical or sensitization testing and do not present an acute ingestion hazard.
- 6. RECOMMENDATION. Under the provisions of the Memorandum of Understanding (paragraph 1b), it is recommended that AI3-37575 and AI3-37576 be approved for further testing as candidate insect repellents.

MICHAEL J. TOPPÉR.

CPT, VC

General Veterinary Officer

Toxicology Division

Chief, Toxicity Evaluation Branch

Toxicology Division

APPROVED:

ARTHUR H. McCREESH, Ph.D. Chief, Toxicology Division

Study Nos. 75-51-0190-81 and 75-51-0191-81, Oct 78 - Jan 81 APPENDIX A

TOPICAL HAZARD EVALUATION PROGRAM DEFINITIONS OF CATEGORIES OF COMPOUNDS BEING CONSIDERED FOR ACUTE SKIN APPLICATION

<u>CATEGORY I</u> - Compounds producing no primary irritation of the intact skin or no greater than mild primary irritation of the skin surrounding an abrasion. (INTERPRETATION: No restriction for acute application to the human skin.)

<u>CATEGORY II</u> - Compounds producing mild primary irritation of the intact skin and the skin surrounding an abrasion. (INTERPRETATION: Should be used only on human skin found by examination to have no abrasions or may be used as a clothing impregnant.)

CATEGORY III - Compounds producing moderate primary irritation of the intact skin and the skin surrounding an abrasion. (INTERPRETATION: Should not be used directly on the skin without a prophetic patch test having been conducted on humans to determine irritation potential to human skin. May be used without patch testing, with extreme caution, as clothing impregnants. Compound should be resubmitted in the form and at the intended use concentration so that its irritation potential can be reexamined using other test techniques on animals.)

<u>CATEGORY IV</u> - Compounds producing moderate to severe primary irritation of the intact skin and of the skin surrounding an abrasion and, in addition, producing necrosis, vesiculation, and/or eschars. (INTERPRETATION: Should be resubmitted for testing in the form and at the intended use concentration. Upon resubmission, its irritation potential will be reexamined using other test techniques on animals, prior to possible prophetic patch testing in humans, at concentrations which have been shown not to produce primary irritation in animals.)

<u>CATEGORY V</u> - Compounds impossible to classify because of staining of the skin or other masking effects owing to physical properties of the compound. (INTERPRETATION: Not suitable for use on humans.)

EYE CATEGORIES:

- A. <u>Compounds noninjurious to the eye</u>. INTERPRETATION: Irritation of human eyes is not expected if the compound should accidentally get into the eyes, provided it is washed out as soon as possible.
- B. <u>Compounds producing mild injury to the cornea</u>. INTERPRETATION: Should be used with caution around the eyes.
- C. Compounds producing mild injury to the cornea, and in addition some injury to the conjunctiva. INTERPRETATION: Should be used with caution around the eyes and mucosa.
- D. Compounds producing moderate injury to the cornea. INTERPRETATION: Should be used with extreme caution around the eyes.
- E. Compounds producing moderate injury to the cornea, and in addition producing some injury to the conjunctiva. INTERPRETATION: Should be used with extreme caution around the eyes and mucosa.
- F. Compounds producing severe injury to the cornea and to the conjunctiva. INTERPRETATION: Should be used with extreme caution. It is recommended that use be restricted to areas other than the face.

PRIMARY SKIN EFFECTS USAEHA TOXICITY CATEGORY CONDITIONS - 0.5 ml technical applied skin for 24 hours Line of the comments Line		COMPOUND: AI3-375-7	AI3-375-75, USDA Proprietary Chemical	ietar	/ Cherr	ical	!		-	JSAEHA ST	USAEHA Study No. 75-51-0190-81
Erythema & Eschar Ascharation Response Response Comments Erythema & Eschar (Hours) 1 2 3 4 5 6 Score Comments Intact Skin 24 0	<u> </u>	PRIMARY SKIN EFFECTS NEW ZEALAND WHITE RA		HA TOX	ICITY I	CATE	ORY	to	CONDI	TIONS -	grade chemical applied hours
Comments Comments	L		Time of			Respo	nse	-			
Erythema & Eschar Louisy 1 2 4 5 6 Comments Intact Skin 24 0			Ubservation	-	1	(abb)	2			Mean	
Erythema & Eschar 24 0	Щ.		(s inon)	7	- 1	2	J	0	٥	Score	
Intact Skin	<u> </u>	rythema & Eschar									
Intact Skin 72 0 <t< td=""><td></td><td>Intact Skin</td><td>24</td><td></td><td>0</td><td></td><td>0</td><td></td><td>0</td><td>0</td><td></td></t<>		Intact Skin	24		0		0		0	0	
Abraded Skin 24 0 0 0 0 Edema Formulation Subtotal 0 0 0 0 Intact Skin 72 0 0 0 0 0 Abraded Skin 72 0 0 0 0 0 Abraded Skin 72 0 0 0 0 0 Abraded Skin 72 0 0 0 0 0 Subtotal 72 0 0 0 0 0		Intact Skin	72		0		0		0	00	
24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B-1	Abraded Skin	72	00		00		0		00	
24 0 0 0 0 0 0 0 24 0 0 0 0 0 0 0 0 0 0				-		•	Subt	otal		0	
24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ابيا	dema Formulation	_			-					
72 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Intact Chin	2.0		c				c	c	
24 0 0 0 0 72 0 0 0 0 0 Subtotal 0	 -	Intact Skin	72		00		00		00	00	
tal 0 0 0		Abraded Skin Abraded Skin	24 72	00		00		00		00	
					-		Subt	otal		0	
							Tota	<u>-</u> -		0	

TOWER FORM 2-3, 21 JTT 79 (HSB-IE)

APPENDIX C

Study	Nos.	. 75-51-() 190-81	and	75-51-0191	-81,	0 ct i	7 8 Jan 81		
	USAEHA Study No. 75-51-0190-81	- 0.5 ml technical grade chemical applied abraded skin for 24 hours	Comments			-,				
	USAEHA Stu	CONDITIONS - 0 to intact and abr	Mean	- ::•	0000	0		0000	0	0
ں ×		COND inta	95					00		
APPENDIX		\$	94		00	Subtotal		00	Subtotal	<u>-</u>
AP		GORY	Response Rabbit No.		00	Subi	_	00	Subt	Total
	ical	CATE	Resp Rabbi 92		00	_		00	_	
	Сћеш	ICITY I	06		00			00		
	etary	USAEHATOXICITY CATEGORY I	89		00	_		00	~	
	6, USDA Propri		Tine of Observation (Hours)		24 72 24 72			24 72 24 72	_	
	COMPOUND: AI3-375-76, USDA Proprietary Chemical	PRIMARY SKIN EFFECTS NEW ZEALAND WHITE RABBITS		Erythema & Eschar	Intact Skin Intact Skin Abraded Skin Abraded Skin		Edema Formulation	Intact Skin Intact Skin Abraded Skin Abraded Skin		
L			L		C	-1				

TSAERA PORM 26-3, 21 JEN 79 (HSE-LE)

Study Nos. 75-51-0190-81 and 75-51-0191-81, Oct 78 - Jan 81

ACUTE EYE EFFECTS NEW ZEALAND WHITE RABBITS Time of Reading Hrs-Days 24 cornea iris conjunctivae				3			,	stady NO.	scaay no. 12 of of of of
ne of ading s-Days		USAĒHĀ TŌXĪCIĪY CATEGORY C	CITY	CATEC	ORY	tec	CONDI chnica	CONDITIONS - Si technical grade ch	Single 24-hour application of 0.1 ml chemical to one eye of each rabbit
s-Days	_			Scores	es				
		1	2 2	Rabbit 3	4 NO.	5	9	: c ore	Comments
		15 0 2	000	10 5 6	20 0 14	0108	15 0 4	12.50 0.83 5.67	
cornea iris conjunctivae		000	200	000	15	000	10 2 8	6.67 1.67 2.67	
72 cornea iris conjunctivae		000	000	000	802	000	200	1.67 0 1.33	
7-days cornea iris conjunctivae		000	000	000	000	000	000	000	

۵

APPENDIX

APPENDIX

USAEHA Study No. 75-51-0191-31	e 24 hour application of 0.1 ml l to one eye of each rabbit	nts				
ıdy No.	Single	Comments				
JSAEHA Stu	CONDITIONS - Single 24 technical grade chemical to	: Mean Score	15.00 0.83 7.00	10.0 1.67 3.67	5.00 0.83 3.67	000
	COND	12	20 5 6	20 0	15 0 4	000
	te		15 0 6	0100	000	000
	JORY	res No.	20	010	50	000
ical	CATE	Scores Rabbit No 9 10	20	15 5 6	000	000
Сһеш	ICITY	8	100	യവവ	യവവ	000
etary	USAEHA TOXICITY CATEGORY C	7	605	000	000	000
AI3-37576, USDA Proprietary Chemical		Structure	cornea iris conjunctivae	cornea iris conjunctivae	cornea iris conjunctivae	cornea iris conjunctivae
AI3-	EFFECT D WHIT	Stru	corn iris conj	cornea iris conjunc	cornea iris conjunc	cornea iris conjunc
COMPOUND:	ACUTE EYE EFFECTS NEW ZEALAND WHITE RABBITS	Time of Reading Hrs-Days	24	48	72	7-days

USAEHA FORT 26-2, 21 JUN 79 (HSE-LT)

APPENDIX F

PHOTOCHEMICAL IRRITATION-NEW ZEALAND WHITE RABBITS

COMPOUND: AI3-37575, USDA Proprietary Chemical COMMENTS: PHOTOCHEMICAL IRRITATION PROCEDURE: Single appl 10 percent oil of Bergamot solution (pos. contro exposed to UV light for 30 minutes.	USDA Proprietar ON PROCEDURE: Samot solution (promotes) or 30 minutes. Fest Compound UV Exposure Lthema Edema		e application (0.05 control) in 95 percontrol WEAN SK Test Compound Non-UV Exposure Erythema Eder	on (0.05 ml) 95 percent e 95 mEAN SKIN IRR mpound xposure Edema	Single application (0.05 ml) of a 25 percent solution of chemical (pos. control) in 95 percent ething 1 to intact skin of six rabbits. MEAN SKIN IRRITATION SCORE Test Compound Non-UV Exposure Non-UV Exposure Erythema Refema Erythema	EHA STUDY NO nt solution of sact skin of section of sact skin of section of s		90-81 and of a Then e Control
COMMENTS: PHOTOCHEMICAL IRRITATION 10 percent oil of Bergam exposed to UV light for	N PROCED mot solu 30 minu st Compo		e application control) in 91 Test Comp Non-UV Exp	(0.05 ml) 5 percent e EAN SKIN IRE SOUND	of a 25 percer themol to inta **ITATION SCORE Positive UV Expo	nt solution of set skin of s		1 of a Then ontrol
PHOTOCHEMICAL IRRITATION 10 percent oil of Bergam exposed to UV light for	W PROCEDI not solu 30 minu 30 minu ist Compo		e application control) in 99 Non-UV Exp Erythema	(0.05 ml) 5 percent e AN SKIN IRF Dound Dosure Edema	off a 25 percer themol to inta RITATION SCORE Positive UV Expo	it solution of set skin of set control		l of a Then ontrol
	st Compo	und rre Edema	1 10 11 1	N E	ITATION SCORE Positive UV Expo	Control		ontrol
	st Compo	und Ire Edema	10 10 1	<u>a</u>	Positive UV Expo Erythema	Control		ontrol
i i	hema	Едета	Erythema	Edema	Erythema	שבחב	Positive Contro	Exposure
Observation Time Erythema						Edema	Erythema	Едеша
24 Hours 8			4	0	16	18	S	m
48 Hours 5		0	4	0	15	17	2	2
72 Hours 5		0	4	0	11	7	0	0
T0TAL 18		1	16	0	42	42	7	5
Mean Irritant Responses		90.0	0.89	0	2.33	2.33	0.39	0.27
Net Score 0.1	1	90.0			1.94	2.05		

AEHA Form 62, | Feb 8! (HSE-LT)

APPENDIX G

PHOTOCHEMICAL IRRITATION-NEW ZEALAND WHITE RABBITS

		PHOIOCHER	PHOTOCHEMICAL IKKITATION-NEW ZEALAND WHITE RABBITS	JN-NEW ZEALA	ND WHITE RABB	115		
COMPOUND: AI3-3	AI3-37576, USDA Proprietary Chemical	roprietary C	hemical		USA	USAEHA STUDY NO.	. 75-51-0191-81	-81
COMMENTS:								
PROCEDURE: Single application (0.05 ml) of Bergamot solution (pos control) in 95 for 30 minutes.	gle application ution (pos cor	on (0.05 ml) ntrol) in 95	of a 25 percent percent ethanol		solution of chemical and of a to intact skin of six rabbits.	17	10 percent solution of oil Then exposed to UV light	on of oil UV light
			\\ \	EAN SKIN IRF	MEAN SKIN IRRITATION SCORE			
	Test Compound UV Exposure	npound sure	Test Compound Non-UV Exposure	pound	Positive Contro UV Exposure	Control	Positive Control Non-UV Exposure	Control
Observation Time	Ery	Edema	Erythema	Edema	Erythema	Edema	Erythema	Edema
24 Hours	2	2	က	2	20	19	æ	2
48 Hours	4	2	3	2	19	22	10	5
72 Hours	0	0 ,	0	0	13	14	1	0
TOTAL	6	4	9	4	52	55	19	10
Mean Irritant Responses	0.5	0.22	0.33	0.22	2.89	3.06	1.06	.56
Net Score	0.17	0			1.83	2.50		
ACHA FORM 67 1 F	(T1-32H) 18 403							

APPENDIX H

COMPOUND:	AI3-375	-75, USDA	AI3-375-75, USDA Proprietary Chemical	y Chemical		USAEHA S	tudy No. 7	USAEHA Study No. 75-51-0190-81
GUINEA PIG SENSITIZATION	ENSITIZ	ATION	Substance:	: AI3-37575	75			
HARTLEY STRAIN	STRAIN		Identify:	USDA Pr	USDA Proprietary Chemical	Chemical		
			Positive Control:	Control:	Dinitroc	Dinitrochlorobenzene	<u>o</u>	
				Σ	ean Irrit	Mean Irritation Scores	S	
Scoring Time 24 hours		Mean Body Wt (G)	v Wt (G) Final	Diluent Initial F	ent	Test Compound	mpound	Commonte
Test Compound	9	437	581	0	0	0	15.9	
Positive Control	trol	441	601	0	0	10.4	344	
-1				Š	ean Irrita	Mean Irritation Scores		
Test Compd		Mean Body Wt (G)	y Wt (G)		ent	Test Compound	punodu	
48 hours		Initial	Final	Initial	Final	Initial	Final	
Test Compound	ъ	ı	ı	0	0	0	1.6	
Positive Control	trol	ı		0	0	9.9	260	Final Scores >100 - Strong Sensitizing
								25-100 - Mild Sensitizing <25 - No Sensitizing

USAEHA FORM 26-4, 9 JUL 79 (HSE-LT)

APPENDIX I

COMPOUND: AI3-735	AI3-73576, USDA Proprietary Chemical	roprietary	Chemical		USAEH	Study No.	USAEHA Study No. 75-51-0191-81
GUINEA PIG SENSITIZATION	ZATION	Substance:	: AI3-37576	576			
HARTLEY STRAIN		Identify:	USDA Pı	USDA Proprietary Chemical	Chemical		
		Positive Control:	Control:	Dinitroch	Dinitrochlorobenzene	a.	
		3	Σ.		Irritation Scores	S	
Scoring lime 24 hours	Mean Body Wt (G)	y Wt (G) Final	Unitial F	ent Final	lest Co Initial	Compound	Comments
Test Compound	437	603	0	0	0	0	
Positive Control	441	601	0	0	10.4	344	
			Σ	ean Irrita	Mean Irritation Scores	S	
Test Compd	Mean Body Wt (G)	y Wt (G)	Diluent	ent	Test Compound	punodu	
48 hours	Initial	Final	Initial	Final	Initial	Final	
Test Compound	ı	ı	0	0	0	0	
Positive Control	•	ı	0	0	6.6	260	Final Scores >100 - Strong Sensitizing
							25-100 - Mild Sensitizing <25 - No Sensitizing

USAEHA FORM 26-4, 9 .TT 79 .HTF-17

END

DATE FILMED

DTIC